

REMARKS

In the Office Action dated March 24, 2003, claims 25-36 were pending. Claims 25-36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Farnsworth et al. (U.S. Patent No. 5,892,660) in view of Ringer et al. (U.S. Patent No. 5,408,386).

In this response, no claim has been amended and new claims 37-42 have been added. Thus claims 25-42 remain pending. No new matter has been added. Reconsideration of the present application is respectfully requested.

Double Patenting

Claims 25-36 were rejected under the judicial created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patent No. 6,250,934. As this is a provisional rejection, Applicant will wait until the Examiner indicates the conflicting claims are allowable over the art of record before addressing the rejection.

Rejections Under 35 U.S.C. §103(a)

Claims 25-36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Farnworth in view of Ringer. Applicant submits that claims 25-42 include limitations not disclosed or suggested by the cited references, individually or in combination.

Specifically, independent claim 25 recites as follows:

25. An apparatus for use in a data processing device, comprising:

an integrated circuit (IC) package having a plurality of leads extended from the IC package;
a first receptacle for receiving the IC package, the first receptacle including a first opening to receive the plurality of leads when the IC package is inserted into the first receptacle through a second opening disposed away from the first opening; and
a second receptacle disposed on the data processing device for receiving the first receptacle, the second receptacle having a plurality of contacts, wherein the plurality leads of the IC package directly contact, via the first opening, with the plurality of contacts of the second receptacle respectively when the first receptacle is inserted into the second receptacle.

(Emphasis added)

Applicant submits that independent claim 25 includes limitations of “a first receptacle for receiving the IC package, the first receptacle including a first opening to receive the plurality of leads when the IC package is inserted into the first receptacle through a second opening disposed away from the first opening”, “a second receptacle disposed on the data processing device for receiving the first receptacle, the second receptacle having a plurality of contacts”, and “wherein the plurality leads of the IC package directly contact, via the first opening, with the plurality of contacts of the second receptacle respectively when the first receptacle is inserted into the second receptacle”, which are absent from the cited references, individually or in combination.

Applicant submits that Farnworth fails to disclose a first receptacle for receiving an IC package. The Examiner contends that memory module 10 of Figure 1 or 60 of Figure 3 of Farnworth is considered as an IC package. Applicant respectfully disagrees. Memory module 10 or 60 is a module containing multiple IC packages which are typically soldered on a circuit board, and then the module is typically inserted into a socket 40 of Figure 2 (see, col. 4 lines 6 to 9). In contrast, independent claim 25 includes a first receptacle to receive an IC package (e.g., individual IC package, as claimed in claims 37 and 41), which is absent from the cited references.

In addition, independent claim 25 includes a second receptacle disposed on a data processing device for receiving the first receptacle. This limitation is also absent from the cited references. The Examiner contends that circuit board 202 is considered as the second receptacle. However, circuit board 202 is not a receptacle disposed on a data processing device for receiving another receptacle. Rather, Figure 11 of Farnsworth merely illustrates a socket (e.g., the alleged first receptacle considered by the Examiner) being soldered onto a circuit board (e.g., a mother board of a computer). If socket 40 is considered as a first receptacle by the Examiner (see, page 4 of the Office Action), it cannot be considered as a second receptacle as claimed in the independent claim 25.

Furthermore, Farnsworth fails to disclose a limitation of “wherein the plurality leads of the IC package directly contact, via the first opening, with the plurality of contacts of the second receptacle respectively when the first receptacle is inserted into the second receptacle”, which is also absent from the cited references, individually or in combination.

As discussed above, the memory module 10 or 60 is not an IC package. The IC packages (e.g., individual memory devices or chips) of Farnsworth have to be disposed on a substrate (e.g., a printed circuit board) having a contact region disposed on an edge to contact another socket (e.g., socket 40). Therefore, the leads of the IC packages are not directly in contact with the socket or another receptacle. Similarly, Ringer also requires such configuration. In fact, this requirement teaches away from the present invention as claimed. In contrast, independent claim 25 discloses an IC package inserted into a first receptacle, such that when the first receptacle is inserted into a second receptacle, the leads of the IC package directly contact with the contact region of the second receptacle. As a result, the PCB or connectors therebetween, as suggested by the cited references, are not needed. Further, none of the cited references discloses or suggests a limitation of a first receptacle being inserted into a second receptacle as claimed in

claim 25. Particularly, the second receptacle may be soldered on a circuit board and the leads of the IC package does not directly contact with the circuit board when the first receptacle is inserted into the second receptacle, as claimed in claims 40 and 44.

It is respectfully submitted that Farnworth does not teach or suggests a combination with Ringer and that Ringer does not teach or suggest a combination with Farnworth. Even if Farnworth and Ringer were combined, such a combination would lack the limitations of “the first receptacle including a first opening to receive the plurality of leads when the IC package is inserted into the first receptacle through a second opening disposed away from the first opening” and “wherein the plurality leads of the IC package directly contact, via the first opening, with the plurality of contacts of the second receptacle respectively when the first receptacle is inserted into the second receptacle” of claim 25.

Therefore, independent claim 25 is patentable over Farnworth in view of Ringer. Similarly, independent claim 31 is a method claim corresponding to apparatus claim 25 and includes similar limitations of claim 25. Therefore, for the reasons similar to those discussed above, Applicant submits that independent claim 31 is patentable over Farnworth in view of Ringer.

In addition, as claimed in claims 37-38 and 40-41, the first receptacle having the IC package is removable from the second receptacle without permanently attachment (e.g., soldering). Applicant submits that none of the cited references, individually or in combination, discloses or suggests the above limitations. Therefore, in addition to those applied to their respective independent claims, for reasons discussed above, claims 37-38 and 40-41 are independently patentable over the cited references.

The rest of the claims depend from one of the above independent claims, and thus include all of the distinct features of their respective independent claim. Therefore, for the reasons

similar to those discussed above, these dependent claims are patentable over Farnworth in view of Ringer.

In view of foregoing arguments, Applicant respectfully submits that the rejections have been overcome and withdrawal of the rejections is respectfully requested.

CONCLUSION

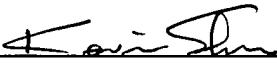
In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

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